

**Second Grade New Math Core Compared to the Old Math Core**  
**DRAFT 9.10.07**

Common to Both (Based on New Language)	New Core Only	Old Core Only
<p><b>Standard I: Students will acquire number sense with whole numbers and fractions and perform operations with whole numbers.</b></p> <p><b>Objective 1: Identify and represent the relationships among numbers, quantities, and place value in whole numbers up to 1000.</b></p> <ul style="list-style-type: none"> <li>• Represent whole numbers in groups of hundreds, tens, and ones using base ten models and write the numeral representing the set in standard and expanded form</li> <li>• Identify the place and the value of a given digit in a three-digit numeral.</li> <li>• Compare and order numbers using the terms, greater than, less than, or equal to, and the symbols, &gt;, &lt;, and =, using various strategies, including the number line.</li> </ul>	<ul style="list-style-type: none"> <li>• Represent the composition and decomposition of numbers in a variety of ways.</li> <li>• Identify and describe even and odd whole numbers.</li> </ul> <p>Extensions:</p> <ul style="list-style-type: none"> <li>• Comparing numbers using symbols.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate multiple ways to represent numbers using symbolic representations.</li> <li>• Identify the number that is one more, one less, ten more, or ten less than any whole number up to 100.</li> <li>• Use ordinal numbers 1<sup>st</sup> through 10<sup>th</sup>.</li> </ul>
<p><b>Objective 2: Use unit fractions to identify parts of the whole and parts of a set.</b></p> <ul style="list-style-type: none"> <li>• Divide geometric shapes into two, three, or four equal parts and identify the parts as halves, third, or fourths.</li> <li>• Divide sets of objects into two, three, or four parts of equal number of objects and identify the parts as halves, thirds, or fourths.</li> <li>• Represent the unit fraction <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, and <math>\frac{1}{4}</math> with objects, pictures, words (e.g., ___ out of ___ equal parts), and symbols.</li> </ul>	<p>Extensions:</p> <ul style="list-style-type: none"> <li>• Identify the parts as halves, thirds, or fourths.</li> </ul>	

<p><b>Objective 3: Estimate, model, illustrate, describe, and solve problems involving two- and three-digit addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>• Model addition and subtraction to two- and three-digit whole numbers (sums and minuends to 1000) in a variety of ways.</li> <li>• Write a story problem that relates to a given addition or subtraction equation, and write a number sentence to solve a story problem that is related to the environment.</li> <li>• Demonstrate fluency with two- and three-digit addition and subtraction problems, using efficient, accurate, and generalizable strategies that include standard algorithms and mental arithmetic, and describe why the procedures work.</li> <li>• Use the mathematical relationship between addition and subtraction and properties of addition to model and solve problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate quick recall of addition facts (up to <math>10 + 10</math>) and related subtraction facts.</li> </ul> <p>Extensions:</p> <ul style="list-style-type: none"> <li>• Demonstrate fluency ...</li> <li>• Three-digit addition and subtraction problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the joining and separating of sets with eighteen or fewer objects and record the results with pictures or symbols.</li> <li>• Use a variety of methods and tools to facilitate computation.</li> <li>• Add three whole numbers with sums to eighteen.</li> </ul>
	<p><b>Objective 4: Model, illustrate, and pictorially record solutions to simple multiplication and division problems.</b></p> <ul style="list-style-type: none"> <li>• Represent multiplication with equal groups using concrete objects and skip counting by twos, fives, and tens.</li> <li>• Represent division as fair shares using concrete objects or pictures.</li> </ul>	
<p><b>Standard II: Students will model, represent, and interpret patterns and number relationships to create and solve problems with addition and subtraction.</b></p> <p><b>Objective 1: Recognize, describe, create, and extend growing patterns.</b></p> <ul style="list-style-type: none"> <li>• Construct models and skip count by twos, threes, and tens and relate to repeated addition.</li> </ul>	<ul style="list-style-type: none"> <li>• Determine the next term in linear patterns (e.g., 2, 4, 6...; the number of hands on one person, two people, three people).</li> </ul>	<ul style="list-style-type: none"> <li>• Sort, classify, and label objects by three or more attributes.</li> <li>• Identify and label repeating patterns using objects, pictures, and symbolic notation.</li> <li>• Identify repeating and growing patterns in the environment.</li> </ul>
<p><b>Objective 2: Model, represent, and interpret number relationships using mathematical symbols.</b></p> <ul style="list-style-type: none"> <li>• Recognize that <math>\neq</math> indicates a relationship in which the two sides of the inequality are expressions of different numbers.</li> <li>• Recognize that symbols such as <math>x</math>, <math>\triangle</math>, or <math>\diamond</math> in an addition or subtraction equation represent a number that will make the statement true.</li> <li>• Use the commutative and associative properties of addition to simplify calculations.</li> </ul>		

<p><b>Standard III: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data.</b></p> <p><b>Objective 1: Describe, classify, and create geometric figures.</b></p> <ul style="list-style-type: none"> <li>Describe (<i>and classify</i>) plane and solid geometric figures (i.e., circle, triangle, rectangle, square, trapezoid, rhombus, parallelogram, pentagon, hexagon, cube, sphere, cone).</li> </ul>	<ul style="list-style-type: none"> <li>trapezoid, rhombus, pentagon, hexagon, cube</li> <li>Classify plane and solid geometric figures according to the number of sides and angles or faces, edges, and vertices.</li> <li>Compose and decompose shapes and figures by substituting arrangements of smaller shapes for larger shapes or substituting larger shapes for arrangements of smaller shapes.</li> <li>Compose and decompose shapes and figures and describe the part-whole relationships, similarities, and differences.</li> </ul>	<ul style="list-style-type: none"> <li>Identify, name, draw, sort...cylinder</li> <li>Find and identify familiar geometric shapes in the students' environment.</li> <li>Determine whether a circle, triangle, square, or rectangle has a line of symmetry.</li> <li>Create and use verbal or written instructions to move within the environment.</li> <li>Find and name locations using coordinates.</li> <li>Identify shapes in various orientations.</li> </ul>
<p><b>Objective 2: Identify and use units of measure, iterate (repeat) that unit, and compare the number of iterations to the item being measured.</b></p> <ul style="list-style-type: none"> <li>Identify and use measurement units to measure, to the nearest unit, length (i.e., inch, centimeter), weight in pounds, and capacity in cups.</li> <li>Estimate and measure length by iterating a nonstandard or standard unit of measure.</li> <li>Determine the value of a set of up to five coins that total \$1.00 or less (e.g., three dimes, one nickel, and one penny equals 36¢).</li> <li>Tell time to the quarter-hour and sequence a series of daily events by time (e.g., breakfast at 7:00 a.m., school begins at 9:00 a.m., school ends at 3:00 p.m.).</li> </ul>	<ul style="list-style-type: none"> <li>centimeter</li> <li>Use different units to measure the length of the same object and recognize that the smaller the unit, the more iterations needed to cover a given length.</li> </ul> <p>Extensions:</p> <ul style="list-style-type: none"> <li>Tell time to the quarter-hour.</li> </ul>	<ul style="list-style-type: none"> <li>Identify the name and value of a penny, nickel, dime, quarter, and dollar.</li> <li>Compare and order objects, using nonstandard units, according to their length, weight, or capacity.</li> <li>Measure length using feet.</li> <li>Use a calendar to determine the day of the week and date.</li> <li>Determine the perimeter of a square, triangle, and rectangle by measuring with nonstandard units.</li> </ul>
<p><b>Objective 3: Collect, record, organize, display, and interpret numerical data.</b></p> <ul style="list-style-type: none"> <li>Collect and record data systematically, using a strategy for keeping track of what has been counted.</li> <li>Organize, display, and label information, including keys, using pictographs, tallies, bar graphs, and organized tables.</li> <li>Describe data represented on charts and graphs and answer simple questions related to data representations.</li> </ul>	<ul style="list-style-type: none"> <li>Organize and represent the same data in more than one way.</li> </ul>	<ul style="list-style-type: none"> <li>Determine the likelihood of an event.</li> <li>Predict events that will be the same in one day or one week.</li> <li>Predict the outcome when there are only two possible outcomes.</li> </ul>